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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,412	01/14/2004	Sun-Ho Hwang	678-1148 (P10789)	6104

28249 7590 09/08/2006

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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,412

Applicant(s)

HWANG, SUN-HO

Examiner

Melur Ramakrishnaiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1-18-2005</u>   | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, are rejected under 35 U.S.C 102(e) as being anticipated by Guilford et al. (US 2002/0087674A1, hereinafter Guilford).

Regarding claim 1, Guilford discloses a mobile station for registering its location in a base station based on public land mobile network information included in system information which the base station transmits, the public land mobile network information including country and network identification codes, the mobile station comprising: a memory in (12, fig. 2) for storing a roaming land mobile network table (fig. 4) which has home public land mobile network information and information for public land mobile network of a mobile network of a mobile communication business proprietor which supports a roaming function into a public land mobile network of a mobile network of a mobile communication business proprietor and home public land mobile network, and a controller in (52, fig. 2) for determining whether the acquired public land mobile network information exists in the roaming public land mobile network table stored in the memory using a frequency having a maximum receiving signal strength when international roaming occurs (this reads on roaming into other than home network), registering the

mobile station in a base station using acquired public land mobile network information when the acquired public land mobile network table, acquiring new public land mobile network information using frequencies having a receiving strength less than the maximum receiving strength when the acquired public land mobile network information does not exist in the roaming public land mobile network and determining whether the newly acquired public land mobile network information exists in the roaming public land mobile network table (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a).

Regarding claims 3, 5, Guilford further teaches the following: the roaming public land mobile network table is obtained by tabling public land mobile network information for a roaming mobile communication business proprietor with respect to a plurality of home public land mobile network information, and when determining whether the acquired public land mobile network information exists in the roaming public land mobile network table, the controller reads the home public land mobile network information from the memory in (12, fig. 2), and compares the read home public land mobile network information with roaming public land mobile network information corresponding to home public land mobile network information, base station (52, fig. 2) transmits the home land public land mobile network information and the roaming public land mobile network information to the mobile station by short service cell broadcast and the controller in (52, fig. 2) updates the roaming public land mobile network table stored in the memory based on the short service cell broadcast provided from a base station of one of the home mobile communication business proprietor and another mobile communication business proprietor (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4, 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guilford in view of De Beer (US 2005/0101323 A1, filed 2-14-2002).

Regarding claims 2, 4, Guilford teaches the following: memory stores final usage public land mobile network information, and controller extracts land mobile network information from the acquired system information using the frequency having a maximum receiving strength when the power of the mobile station is turned on, and determines roaming occurs (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a); but he does not teach the following: comparing the country code of the extracted land mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile network is identical with the country code of the final usage of the public land mobile network information.

However, De Beer discloses network selection in a mobile telecommunication system which teaches the following: comparing the country code of the extracted land

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mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile network is identical with the country code pf the final usage of the public land mobile network information (fig. 7, paragraphs: 0066 – 0074).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Guilford's system to provide for the following: comparing the country code of the extracted land mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile network is identical with the country code pf the final usage of the public land mobile network information as this arrangement would provide means for determining most preferred network for communicating when user is roaming across the networks as taught by De Beer.

Regarding claim 6, Guilford teaches the following: storing a roaming public land mobile network table in memory (fig. 4), roaming public land mobile network including the home public land mobile network information and a plurality of public land mobile network information, acquiring public land mobile network information using a frequency having a maximum receiving strength when the power of the mobile station (fig. 7a) is turned on, determining whether the acquired public land mobile network information

exists in the roaming public land mobile network table stored in the memory when the roaming occurs, and registering the mobile station in the base station (52, fig. 2) when the acquired public land mobile network information exists in the roaming public land mobile network table stored in the memory, acquiring new public land mobile network information using frequencies having receiving strength less than the maximum receiving strength when the acquired public land mobile network information does not exist in the roaming public land mobile network table and comparing the newly acquired public land mobile network information with the roaming public land mobile network table (fig. 7, paragraphs: 0066 – 0074).

Guilford differs from claims 6-7 in that he does not teach the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information.

However, De Beer teaches the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information (fig. 7, paragraphs: 0066 – 0074).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Guilford's system to provide for the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information as this arrangement would provide means for determining most

preferred network for communicating when user is roaming across the networks as taught by De Beer.

Regarding claims 8-9, Guilford further teaches the following: public land mobile network table is obtained by tabling public land mobile network information for a mobile communication business partner which supports roaming function with respect to a plurality of public land mobile network information, and reading the home public land mobile network information from the memory and comparing, the acquired public land mobile network information with roaming public land mobile network information corresponding to the read home public land mobile network information, receiving new public land mobile network information from the base station through short service cell broadcast, and updating the roaming public land mobile network information to the roaming public land mobile network table (fig. 7, paragraphs: 0066 – 0074).

### ***Response to Arguments***

5. Applicant's arguments filed on 6-30-2006 have been fully considered but they are not persuasive.

Rejection of claims 1, 3, 5, under 35 U.S.C 102(e) as being anticipated by Guilford et al. (US 2002/0087674A1, hereinafter Guilford): Regarding rejection of claim 1, Applicant argues that "Claim 1 of the present application recites, in part, that mobile station initially acquires a public land mobile network (PLMN). After initial acquisition, one of two occurrences occur based on whether the acquired PLMN exists in a roaming table stored in the roaming table, the mobile station registers ... new public land mobile network information is acquired using frequencies having a receiving strength less than



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maximum receiving strength. It is then determined ... The process continues until a PLMN in the roaming table is acquired". Applicant further alleges that "Guilford et al. does not progressively search for PLMNs based on decreasing signal strength of frequencies". Contrary to applicant's interpretation of Guilford does teach network information is acquired using frequencies having a receiving strength less than maximum receiving strength as illustrated by steps 74, 76, 78, 80 of fig. 7a (paragraphs: 0067-0069). Since Guilford teaches applicant's claim limitations, rejection of the claims is maintained.

Rejection of claims 2, 4, 6-9 under 35 U.S.C 103(a) as being obvious over Guilford in view of De Beer (US 2005/0101323 A1, filed 2-14-2002): Regarding rejection of independent claim 6, Applicant argues that "Similar to claim 1, Claim 6 of the present application recites, in part, that mobile station initially acquires a public land mobile network (PLMN). After initial acquisition, one of two occurrences occur based on whether the acquired PLMN exists in a roaming table stored in the roaming table, the mobile station registers ... new public land mobile network information is acquired using frequencies having a receiving strength less than maximum receiving strength. It is then determined ... The process continues until a PLMN in the roaming table is acquired". Applicant further alleges that "Guilford et al. does not progressively search for PLMNs based on decreasing signal strength of frequencies". Contrary to applicant's interpretation of Guilford does teach network information is acquired using frequencies having a receiving strength less than maximum receiving strength as illustrated by steps

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74, 76, 78, 80 of fig. 7a (paragraphs: 0067-0069). Since Guilford teaches applicant's claim limitations, rejection of the claims is maintained.

Applicant's arguments regarding rejection of dependent claims 2-5 and 7-9 are tied to independent claims 1 and 6 being patentable which are not as explained above.

In light of the above explanation rejection of claims 1-9 is maintained.

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Melur Ramakrishnaiah  
Primary Examiner  
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